



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,747	03/10/2005	Ian Ralph Collins	608-443	5009
23117 7590 01/26/2007 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			EXAMINER FIGUEROA, JOHN J	
			ART UNIT	PAPER NUMBER
			1712	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/26/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/511,747	Applicant(s) COLLINS ET AL.	
	Examiner John J. Figueroa	Art Unit 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-37 and 44-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 44-48 and 52-58 is/are allowed.
- 6) ☒ Claim(s) 30-37 and 49-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The 35 U.S.C. 102(b) rejection of claim 52 as anticipated by United States Patent Number (USPN) 6,380,136 B1 to Bates et al. (hereinafter 'Bates') in item 2 on page 2 of the Office Action mailed August 9, 2006, hereinafter 'OA', has been withdrawn.
2. The 35 U.S.C. 103(a) rejection in item 5 on page 3 of OA as unpatentable over USPN 5,089,150 to Hen, hereinafter 'Hen', in view of Bates has been withdrawn with respect to claims 44-48 and 52-58 only.
3. The 35 U.S.C. 103(a) rejection of claims 30-37 and 49-51 as unpatentable over Hen in view of Bates is maintained for the reasons previously made of record in item 5 on page 3 of OA.

Allowable Subject Matter

4. Claims 44-48 and 52-58 are allowed.

The prior art does not teach or suggest the process recited in independent claim 44 for preparing particles of an esterifiable scale inhibitor cross-linked with a polyol via ester-cross-links comprising heating a polyol, an esterifiable inhibitor and a strong catalyst under low shear conditions to form a macrogel; drying said macrogel to form a solid; and comminuting the solid to provide particles of esterifiable scale inhibitor cross-linked with a polyol having a mean particle size diameter of less than one micron.

Nor does the prior art teach or suggest the method of inhibiting scale formation recited in independent claim 52 comprising injecting a suspension of scale inhibitor particles, having a mean diameter of less than one micron, through an injection well in to a subterranean formation; allowing said suspension to percolate in the formation; and controllably releasing the scale inhibitor from the particles in the near well bore region of the production well.

Response to Arguments

The 35 U.S.C 102 Rejection over Bates (item 3 of OA)

5. Applicant's arguments in the response to OA filed October 31, 2006, hereinafter 'Response', regarding the captioned 102 rejection of claim 52 over Bates have been fully considered and deemed persuasive, particularly regarding the method in Bates being drawn to adding the scale inhibitor particles directly into a production well, whereas, on the other hand, the method recited in claim 52 is drawn to injecting a suspension of particles through an injection well and "controllably releasing the scale inhibitor from the particles in the near well bore region of the production well."

Accordingly, the instant rejection of this claim has been withdrawn.

The 103 Rejection over Hen and Bates (item 5 of OA)

6. Applicant's arguments in Response traversing the captioned 103 rejection over Hen and Bates regarding claims 44-48 and 52-58 have been fully considered and deemed persuasive, particularly regarding the method in Hen and Bates not suggesting

Art Unit: 1712

the step of drying a macrogel followed by comminuting an esterifiable scale inhibitor crosslinked with a polyol to a size of less than one micron (claims 44-48), and that Bates is drawn to adding the scale inhibitor particles directly into a production well, whereas the instant method (claims 52-58) is drawn to injecting a suspension of particles through an injection well as discussed above in the immediately preceding paragraph.

Thus, the instant rejection of claims 44-48 and 52-58 has been withdrawn.

7. Applicant's arguments regarding the 35 U.S.C. 103(a) rejection of claims 30-37 and 49-51 as unpatentable over Hen in view of Bates have been fully considered but are deemed unpersuasive.

In response to Applicant's arguments that Hen individually does not expressly suggest "that the polymer could or should be used in any solid form ... with a definite particle size ... would be useful" and Hen discloses a "viscous product," one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The instant 103 rejection is based on a combination of Hen and Bates, wherein Bates teaches that coated scale inhibitors in the form of particles significantly extend the life-time of the inhibitor thereby increasing the cost effectiveness of inhibitor treatment and further teaches a process for preparing a dry mixture or powder of said particles by comminuting to provide scale inhibitor particles having an average size of between 0.4 and 3 microns (diameter of 400 to 3000 nm). (See OA, page 4, lines 15-22) As stated

Art Unit: 1712

in item 5 of OA, it would have been obvious to one in the art to provide the crosslinked polyol-scale inhibitors disclosed in Hen in the form of a suspension of coated particles to attain a more cost-effective suspension of crosslinked polyol-scale particle inhibitors that provide for enhanced inhibition of corrosion within the well thereby optimizing production, in accordance with the teachings in Bates.

Moreover, regarding neither Hen nor Bates not teaching the same "advantage" as Applicant's invention, it is noted that the feature(s) upon which Applicant relies (e.g., release of the scale inhibitor by hydrolysis in an aqueous medium) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Thus, the instant claims are unpatentable over Hen and Bates.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USPN 6,300,423; USPN 5,856,409 and USPN 5,254,634 all disclose particles crosslinked with a polyol but having a particle size that is greater than one micron.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

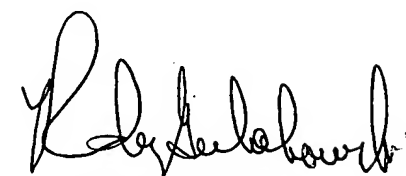
Art Unit: 1712

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Figueroa whose telephone number is (571) 272-8916. The examiner can normally be reached on Mon-Thurs & alt. Fri 8:00-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



RANDY GULAKOWSKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700